

SE-1200 Pro

Electrocardiograph

Version 1.0



Technical Specifications

Physical Specifications

Dimensions

298mm×209mm×103mm

Weight

3kg (Excluding recorder paper and battery)

Display

8.0" LCD full-touch screen, at a resolution of 1280x800

Power Supply

Mains Supply

Operating Voltage = AC 100V-240V

Operating Frequency = 50Hz/60Hz

Output Power: 19V 2.52A

Internal Li-ion Battery Pack

Rated voltage = 14.8V

Rated capacity = 2,500 m Ah

Necessary Charge time: ≤3 hours

Recording

Recorder

Thermal dot-matrix recorder

Printing Density:

8 dots per mm / 200 dots per inch (amplitude axes)

40 dots per mm / 1000 dots per inch (time axes, @ 25 mm/s)

Recorder Paper:

Folded thermal paper: 210 mm×140 mm

Paper Speed:

5mm/s, 6.25mm/s, 10mm/s, 12.5mm/s, 25mm/s, 50mm/s (±3%)

External Printer:

HP M401, HP 1106/1020P, HP LaserJet P2035, HP Laser jet Pro M403D, HP LaserJet pro M202DW, HP Desk Jet 4729, HP Desk Jet 3638, HP1112, HP2132

HR Recognition

HR Range

30 BPM ~300 BPM

Accuracy

±1 BPM

ECG Unit

Leads:

9 or 12 standard leads

A/D Converter:

24bits

Time Constant:

≥5s

Sampling Frequency:

64,000 Hz

Input Impedance:

≥100MΩ (10Hz)

Input Voltage Range:

<±5mVp-p

CMRR:

≥140dB (AC on)

≥123dB (AC off)

Acquisition Mode:

9 or 12 leads acquisition simultaneously

Resolution:

0.1192μV/LSB

Frequency Response:

0.01Hz ~ 350Hz

Gain:

1.25, 2.5, 5, 10, 20, 10/5, AGC (mm/mV) (±5%)

Input Circuit Current:

≤0.01μA

Calibration Voltage:

1mV±1%

Pacemaker

Sampling Frequency

80,000 Hz, Rhythm Lead

Width:

30μs to 2.0 ms

Amplitude:

±500μV to ±700 mV

Filter

AC Filter:

Off/50Hz/60Hz

EMG Filter:

Off/25Hz/35Hz/45Hz

DFT Filter:

0.01Hz/0.05Hz/0.32Hz/0.67Hz

LOWPASS Filter:

350Hz/300Hz/270Hz/150Hz/100Hz/75Hz

Data Transmission

Report Format:

DAT, SCP, FDA-XML, DICOM
(Encapsulated PDF),
DICOM (ECG Waveform), PDF, JPG,
BMP, PNG, and TIFF

Data Management System:

SE-1515 Data Management System, bi-
directional communication

Data Transmission:

Wi-Fi, Ethernet, 4G network

Communication protocol:

FTP/DICOM/EDAN proprietary protocol

Wi-Fi

Transmitting Frequency:

2.4GHz & 5GHz

Modulation Type:

DBPSK/DQPSK/CCK

BPSK/QPSK/1

6QAM/64QAM,GFSK, $\pi/4$ -DQPSK,8-DPSK

Frequency Band:

2.4GHz and 5 GHz

241.2 MHz – 2472 MHz (2.4GHz)

5150 MHz – 5850 MHz (5GHz)

Transmitting Power:

≤ 1 dBm (2.4GHz)

≤ 1 dBm (5GHz)

4G (Option)

Bands

FDD LTE: Band 1, Band 2, Band 3, Band 4, Band 5, Band 7, Band 8, Band 3, Band 12, Band 17, Band 20, all bands with diversity

TDD LTE: Band 34, Band 38, Band 39, Band 40, Band 41, all bands with diversity

Safety Specifications

Comply with:

IEC 60601-1:2005/A1:2012

EN 60601-1:2006/A1:2013

IEC 60601-1-2:2014

EN 60601-1-2:2015

IEC/EN 60601-2-25

Patient Auxiliary Current

NC $< 10\mu\text{A}$ (AC) / $< 10\mu\text{A}$ (DC)

SFC $< 50\mu\text{A}$ (AC) / $< 50\mu\text{A}$ (DC)

Anti-electric-shock type:

Class I with internal power supply

Patient Leakage Current:

NC $< 10\mu\text{A}$ (AC) / $< 10\mu\text{A}$ (DC)

SFC $< 50\mu\text{A}$ (AC) / $< 50\mu\text{A}$ (DC)

Anti-electric-shock degree:

CF type with defibrillation-proof

Environment Specifications

Temperature:

Transport & Storage: -20°C (-4°F) ~ $+55^{\circ}\text{C}$ ($+131^{\circ}\text{F}$)

Working: $+5^{\circ}\text{C}$ ($+41^{\circ}\text{F}$) ~ $+40^{\circ}\text{C}$ ($+104^{\circ}\text{F}$)

Atmospheric Pressure:

Transport & Storage: 70kPa ~106kPa

Working: 70kPa ~106kPa

Relative Humidity:

Transport & Storage: 15%~93%RH Non-Condensing

Working: 15%~93%RH Non-Condensing